Keep Gutters and Downspouts Flowing all Winter Long with Frost King® Roof De-icing Cable

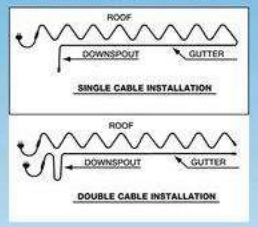
Roof and gutter de-icing cables help end costly ice damage by preventing ice dam formation and promoting the free flow of water through gutters and downspouts to ground level.

This product is for the sole intended use of preventing ice dams from forming on inclined roofs with tab shingles, in gutters and in downspouts. This roof de-icing cable is not intended for use as a snow-melting system to clear roof of ice and snow. ***Never install on a flat roof. Never install on combustible materials. Not suitable for use on metal roofs: contact Frost King for appropriate cable solutions.***

Includes: De-icing Cable, Shingle Clips, Cable Spacers, Installation Instructions and Electrical Panel Labels.

Cable Installation Patterns

One cable may cover both roof and gutter areas, or separate cables can be used.



RS-2

DESIGNING A SYSTEM

- Sun exposure, prevailing weather direction and roof shape may result in different conditions at different points on a roof. Several controls and shorter cable runs may be appropriate. If only one control is used, it should be located to respond to the worst icing conditions.
- The length of roofline alone does not determine cables/controls needed. Consider: roof design and size; gutter and downspout location; number of sides of a typical, peaked roof to be protected.
- Use of a temperature and moisture sensing control, such as the Frost King RS-2 Roof Sentry, is highly recommended. Using a proper control will ensure the system is automatically energized only when needed. Use one RS-2 for each Frost King cable installed.
- Use a ground fault protection device or outlet.
- Weather-proofed outlets of sufficient quantity and amp rating are required within six (6) foot cord-set length of the cable/control starting point.

DETERMINE ROOF DE-ICING CABLE NEED

Measure Roof Overhang

Install cable over unheated portion of roof — normally roof area above overhang. This helps to ensure that water flowing onto the unheated roof area will be able to flow to the ground. Installing cable in valleys, gutter and downspouts as well creates an ice-free pathway for water to drain completely from eaves and gutter. For your de-icing cable requirements, determine the roof overhang (E in figure 1) with corresponding multiplier as follows:

MULTIPLIER TABLE

Roof Overhang	Overhang Multiplier*	Roof Overhang	Overhang Multiplier*
12˝ / 30 cm	4.0	48˝ / 120 cm	8.1
24˝ / 60 cm	5.3	60˝ / 150 cm	9.6
36˝ / 90 cm	6.8	72˝ / 180 cm	11.2

*Length of cable required per foot of roof length. Note: Multiplier shown includes 1 foot of gutter cable for each foot of roof edge.

Measure Length of Roof

1. Measure horizontal roof length to be covered by cable; multiply by Overhang Multiplier to determine total cable length for roof area.
2. Add cable for downspout (A in figure 2). NOTE: if a downspout is located anywhere *other than* at the end of the cable routing, that downspout will require double length of cable (B in figure 2).
3. Add extra cable for valleys (6′ per valley, C in figure 2) and around dormers (D in figure 2).

Example: 24 feet of roof, 24 inches overhang (therefore using Overhang Multiplier of 5.3), 2 downspouts at 10′, one at end of cable run, and one at midrun, 1 valley, 1 dormer with 30′ perimeter.

Cable length = (24 x 5.3) + 10 + 20 + 6 + 30 = 193.2 feet

*In this example, select **HC200 (200′)**, as it is closest to 193.2 feet. Use excess cable in valley or downspout.*

Compare your total to standard lengths available from your retailer. Specify closest product possible to your total need. ***De-icing cable cannot be cut or altered; doing so voids the warranty.*** Once cut, it cannot be repaired.